

Fighting for Life

East Yard Communities for Environmental Justice - 2317 Atlantic Blvd. Commerce, CA. 90040

September 23, 2009

Mary Nichols, Chairman of the Board
All Boardmembers
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: 9/25/09 Board Hearing Agenda Item No. 09-8-5: Public Meeting to
Consider Staff Recommendations to Provide Further Locomotive and
Railyard Emissions Reductions

Dear Chair Nichols:

On January 23, 2009, the California Air Resources Board (“**CARB**”) Executive Officer granted in part a Petition for Rulemaking filed by East Yard Communities for Environmental Justice and other environmental and community organizations pursuant to Cal. Government Code sections 11340.6 and 11340.7. The Petition sought action by CARB to significantly reduce emissions and health risks arising from California rail yards and locomotives.

The Executive Officer noted that the evidence “clearly demonstrates that activities within and around these rail yards and responsible for an unacceptably high risk.” The Executive Officer confirmed that “substantial additional emission reductions are necessary” and agreed to evaluate implementation options in a technical document and present the Board with a plan to achieve such reductions.

We appreciate the time CARB has spent since then on “Technical Options to Achieve Additional Emissions And Risk Reductions From California Locomotives and Rail Yards” and “Recommendations to Implement Further Locomotive and Railyard Emissions Reductions.” In these documents, CARB staff identifies numerous cost-effective and feasible mitigation measures.

We respectfully write to provide comments on these two documents in connection with the Board hearing and referenced agenda item set for September 25, 2009. In addition, attached for your review and incorporated for the record as Exhibit A hereto is a comprehensive analysis of the “Technical Options to Achieve Additional Emissions and

I. CALIFORNIA RAIL YARD AND LOCOMOTIVE MEASURES ARE NEEDED TO MEET FEDERAL CRITERIA POLLUTANT STANDARDS AND TO REDUCE UNACCEPTABLY HIGH CANCER RISK TO COMMUNITIES THROUGHOUT THE STATE

In September 2007, CARB adopted the State Implementation Strategy for the California State Implementation Plan (“SIP”) that includes emissions reduction targets for locomotives and other mobile sources present at the rail yards that are necessary as part of the State’s effort to meet health-based federal and State air quality standards for ozone and particulate matter (“PM”). The 2007 State SIP strategy for PM-10 attainment concedes that “the severity of the region’s PM-2.5 problem and the attainment deadline make it necessary to further mitigate locomotive emissions in 2014.” This is particularly true given the South Coast Air Basin’s reliance on unknown “black box” measures to demonstrate ozone attainment pursuant to CAA section 182 and the 2009 California Budget revisions to CARB’s heavy duty truck regulation. In this circumstance, the State and the South Coast Air Basin need every available measure.

Further, starting in 2005, CARB prepared detailed human health risk assessments (“HHRAs”) determining that California’s 18 major intermodal and classification rail yards create cancer risks for local communities throughout the State as high as 3,300 per one million. These California’s rail yards far exceed accepted regulatory standards and are among the highest airborne toxic emitters in the State.¹ CARB has concluded that “every feasible effort” is needed to “reduce localized risk in communities adjacent” to rail yards.

Over three million people are exposed statewide to excess cancer risk of at least 10 in one million. For example, for both the BNSF San Bernardino rail yard and four Commerce rail yards, there are enormous residential areas that have 10 in a million or greater risk of cancer surrounding the rail yards (61,880 acres and 76,000 acres, respectively). We believe that total cumulative risk from all regional sources is far greater and non-cancer risks are estimated by the South Coast AQMD to be at least ten times higher. Simply put, the measures taken to date are not enough.

The HHRAs also demonstrate that for each of the communities affected by railway emission, a large percentage of the population at risk includes the elderly, the immune-compromised, and children (sensitive receptors). By way of example, around the BNSF San Bernardino rail yard, there are at least 41 locations with sensitive receptors, such as the Ramona-Alessandro Elementary School (670 Ramona Avenue, San

¹ In 1990, Congress adopted a one in one million threshold in Section 112 of the Clean Air Act, which requires the U.S. EPA to issue technology-based emission standards to reduce emissions of hazardous air pollutants, and further requires the U.S. EPA to consider issuing residual risk emission standards if the excess cancer risk to the individual most exposed to such emissions would exceed the one in one million risk level.

Bernardino) that has a student body of 825 exposed to cancer risk ranging from over 500 to 25 in a million. Similarly, there are at least 45 sensitive receptors exposed to cancer risk ranging from over 500 to 50 in a million at the four Commerce rail yards.

Excess cancer risk is present at all of the 18 major intermodal and classification rail yards. The high exposure of sensitive receptors to these risks requires immediate action by your agency.

II. CARB AND THE PETITIONERS HAVE REACHED “COMMON GROUND” THAT NUMEROUS REGULATORY MEASURES ARE LIKELY NOT PREEMPTED

The Appendix to CARB’s “Recommendations to Implement Further Locomotive and Railyard Emissions Reductions” concedes that many of the potential measures to address PM criteria emissions and cancer risk at California rail yards likely are not preempted by federal law. Thus, CARB should approach this issue from a position of legal strength. Please we urge that you do so. The railroads can no longer use the shield of federal preemption to avoid further regulations.

The Federal Clean Air Act (“CAA”) delegates regulatory responsibility to CARB for criteria pollutant and air toxic control measures. Thus, pursuant to CAA sections 110(a), 172(c) and 182(b), the SIP² must demonstrate attainment or include all feasible measures. CAA section 209(e) also gives California authority to regulate certain non-road engines and adopt “in-use” requirements. *See Engine Mfrs. Ass’n v. U.S.E.P.A.*, 88 F.3d 1075 (D.C. Cir. 1996); Cal. Health & Saf. Code sections 39650 *et seq.* and 41701.

Pursuant to this delegation, the Cal. Health & Saf. Code sections 36902, 40462, 40469 and 43018 confirm that CARB has authority to take “whatever” actions are “necessary, cost-effective and technologically feasible” to achieve the maximum degree of reduction possible from mobile sources. Further, CARB has an express duty pursuant to Cal. Health & Saf. Code sections 40702 and 43013 to regulate through rulemaking locomotive and rail yard sources, unless preempted by federal law

With this regulatory framework, CARB’s own legal Recommendations conclude the following at pages Appendix 6-8 with emphasis added:

“ARB staff believes that ARB likely possesses authority to establish emission standards for switcher and medium horsepower locomotives that principally operate in intrastate service . . .

² While SIP measures generally are intended to achieve National Ambient Air Quality Standards for criteria air pollutants, PM-10 and PM-2.5 are both criteria pollutants responsible for much of the toxic risk created by locomotive and rail yard emissions in the State. Thus, a SIP measure that reduces PM from rail yard sources will also reduce toxic risk.

[w]e believe that a significant portion of the approximate 400 MHP freight and passenger locomotives were manufactured prior to 1973 or exceed 133 percent of their useful lives since manufacture or last manufacture and **would fall outside of the CAA preemption** . . .

[t]he other 28 options considered by staff involve local railyard sources and intrastate activities. These options . . . are not preempted under CAA section 209(e)(1). **ARB thus has authority** under California law and CAA section 209(e)(2) to adopt emission standards for most, if not all, of the sources covered by the options.”

Thus, as it turns out, up to 100 older switcher, 400 older medium horsepower (“MHP”) locomotives and numerous site-specific rail yard measures likely are not preempted by federal law. In fact, U.S. E.P.A. has stated in writing that such switcher and older engine controls are not-preempted and “**are subject to regulation by California and the other states.**” See 72 Fed. Reg. 15971 (April 3, 2007) (emphasis added).

In light of this, there is much legal “common ground” with Petitioners. CARB has a duty under federal and State law to adopt all feasible and cost-effective regulations for these sources of criteria and toxic emissions. CARB has a legal duty to immediately initiate a rulemaking to factually analyze and study regulations for these rail yard and locomotive sources.

III. CARB SHOULD IMPLEMENT THROUGH REGULATIONS AND FINAL SITE-SPECIFIC MITIGATION PLANS INCLUDING COST-EFFECTIVE AND FEASIBLE OPTIONS 1, 2, 5, 7, 11, 21, 35, 36 AND 37

Petitioners are concerned that nearly five years after the HHRAs and one year after the “Draft” Mitigation Plans, CARB proposes no regulations or site specific measures. This is not the approach of an agency that is taking every “feasible” opportunity to reduce “unacceptably high” cancer risks. It is time to implement, not merely study, regulations and site-specific measures.³ It is also time to finalize the Mitigation Plans and implement the measures therein.

Petitioner agrees with CARB that Options 1 (replacement of 152 Tier 0 and older switch locomotives with Tier 3 Ultra-Low Emitting Switch Locomotives), 2 (retrofit of 244 gen-set switch locomotives with nitrous oxides and particulate matter emission controls), 5 (repower of 400 older medium horsepower locomotives with low-emitting engines), 7 (retrofit of 400 low-emitting medium horsepower locomotives with nitrous

³ ARB is well-aware of the railroads’ environmental commitments for the proposed BNSF So. Cal. International Gateway (“SCIG”) and Union Pacific Intermodal Container Transfer Facility (“ICTF”) expansions including: electric cranes and yard equipment, upgrading entrances and infrastructure, clean truck fleet, minimizing diesel and integrating alternative fuels, soundwalls, urban forest and reduced lighting impacts. The question must be asked: if the above-listed measures are feasible and can reasonably be implemented by the rail companies for the SCIG and ICTF expansions, then why (with a reasonable schedule and timetable) not at existing yards throughout the State?

oxides and particulate matter emission controls) are feasible and cost effective. However, they are not the only options that will have a significant impact on emissions from rail yards.

In addition, Options 11 (electric-powered yard trucks), 21 (Advanced Locomotive Emissions Control System), 35 (ambient particulate matter monitoring stations), 36 (enhanced truck and locomotive inspection program), and 37 (move rail yard emission sources away from nearby residents) are also feasible and cost effective. While Options 1, 2, 5, and 7 provide significant decreases in particulate matter and nitrous oxides emissions from locomotives, they do not decrease the overall emissions of the rail yards to a point of *de minimis* risk for the surrounding communities. CARB staff has been present at more than one dozen community recent meeting throughout the State to discuss the railroads' Draft Mitigation Plans. At these meetings, CARB staff consistently heard testimony from local residents about the local impacts and pollution emissions from specific rail yard operations.

Options 11, 21, 35, 36, and 37 are focused on improvements to the rail yards themselves, reducing the overall emissions from the rail yards. The combination of the above options (1, 2, 5, 7, 11, 21, 35, 36, and 37) would provide for a significant decrease in particulate matter emissions from the rail yards, therefore decreasing PM and criteria emissions and cancer risk to nearby residents. In the past, we understand that CARB has regulated sources at a cost of up to \$50/lb. Each of these recommended Options is analyzed in depth in the accompanying report prepared by consultants Soil / Water / Air Protection Enterprise attached as Exhibit A hereto and incorporated in its entirety herein.

Option 11, which consists of revamping all 322 diesel yard trucks into electric-powered yard trucks, would reduce PM and toxic risk to the surrounding communities. If implemented, the trucks would reduce DPM and nitrous oxides emissions from yard trucks from 0.062 tons/year to zero tons/year. The successful testing at the Port of Los Angeles of electric yard trucks shows that it is technically feasible.

Option 21 involves installation of an Advanced Locomotive Emission Control System ("ALECS") near locations where locomotives are idling and would reduce PM and toxic risk to the surrounding communities. ALECS have been shown to reduce NOx and DPM emissions by 90% during service and idling periods at UP Roseville. The cost effectiveness is about \$23/lb of NOx and PM for 20 years for the UP Roseville rail yard, using Carl Moyer calculations.

Option 35 involves the installation of ambient monitoring stations with Aethelometers to measure rail yard DPM emissions in an addition to air toxic monitoring. This option is feasible and critical for demonstrating the effectiveness of mitigation plans. These stations would allow for real-time tracking and monitoring of DPM emissions, as well as measurement of pollutant concentrations to which the public is exposed.

SCAQMD's recent and successful MATES III Study (a regional monitoring and risk assessment program), shows that real-time monitoring can be achieved for toxic

contaminants present in DPM (see <http://www.aqmd.gov/prdas/atesIII/atesIII.html>). The cost of each monitoring system is estimated to be about \$30,000 to \$35,000 – this is very cost-effective given the significant cancer risks at California rail yards.

Option 36 involves an enhanced truck and locomotive inspection program. Stepped up enforcement of idling regulations through CARB staff inspections at designated rail yards would ensure continuous compliance by the rail lines. This includes heavy duty diesel truck idling and retrofit inspection and enforcement, as well as in connection with CARB rules concerning drayage fleets, locomotive in use compliance testing for federal standards, non-essential and essential locomotive idling, refrigerated units, intrastate locomotive fuel and cargo handling rules. This is particularly true because the Report relies on compliance with the Port Drayage Truck Regulation with regard to analysis of reductions from truck measures in Options 17 to 19 and anti-idling measures set forth in Options 23.

Option 37 is to relocate rail yard emission sources further away from nearby residents. Studies show that a 90% reduction in cancer risk can occur if DPM sources are moved to distances over 1,500 feet from receptors, and cancer risk decreases dramatically with increased distance from the DPM source. Significant reductions in health risks can be achieved through relocation of maintenance facilities, staging areas and yard entrances, or by requiring higher emission controls on equipment near high risk residential areas.

Accordingly, the undersigned respectfully requests that CARB take the following comprehensive feasible actions to meet its duty reduce criteria pollutant emissions and toxic risk at California rail yards:

- Initiate a rulemaking within 60 days for implementation of:
 - Option 1 (replacement of older non-preempted switch locomotives with Tier 3 Ultra-Low Emitting Switch Locomotives);
 - Option 2 (retrofit of older non-preempted switch locomotives with NOx and PM emission controls);
 - Option 5 (repower of older non-preempted medium horsepower locomotives with low-emitting engines);
 - Option 7 (retrofit of older non-preempted low-emitting medium horsepower locomotives with NOx and PM emission controls);⁴ and

⁴ Staff is concerned that the railroads may invoke the “poison pill” in the 1998 ARB/Railroads MOU and act to remove cleaner locomotives from the South Coast Air Basin (the railroads, however, declined the opportunity to publicly say this at the September 15, 2009 workshop). Staff also notes that the railroads could elect to retrofit (at their great expense) the nonpreempted dirty older switch and MHP locomotives to tier 0 standards, thereby bringing these locomotives under the preemptive shield of the CAA and avoiding potentially stricter CARB standards.

These concerns should not be permitted to control the Board’s decisions. To do so would be unlawful breach of CARB responsibilities to protect public health pursuant to the California Health & Safety Code. Also, such action by the railroads to dirty the air is speculative since they simultaneously will be seeking controversial discretionary expansion approvals from the Los Angeles Port and Joint Powers Authority at

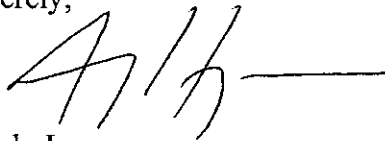
- funding for such measures to include all available federal and State incentive and matching programs.

- Direct staff to report to the Board within 120 days to finalize site-specific “Diesel Particulate Matter Mitigation Plans” for the 18 individual major California rail yards (starting with those with the highest cancer risk) with enforceable measures including but not limited to:

- Option 11 (electric-powered yard equipment);
 - Option 21 (Advanced Locomotive Emissions Control System);
 - Option 35 (ambient PM monitoring stations);
 - Option 36 (enhanced truck and locomotive inspection program); and
 - Option 37 (move rail yard emission sources away from nearby residents).
- Direct staff to report to the Board within 120 days on:
 - Seeking changes in federal law to eliminate preemptions;
 - Supporting the San Pedro Ports Clean Air Action Update;
 - Seeking changes in federal law for switch and line haul locomotives;
 - Development of the goods movement efficiency measure;
 - Evaluation of electrification of rail and drayage trucks as long term measures;
 - Development of improved emissions inventories for locomotives and rail yards;
- and
- Support for advanced locomotive research programs.

We thank you for the opportunity to provide these comments and urge CARB to satisfy its mandatory duty to regulate through rulemaking all non-preempted California locomotive and rail yard sources.

Sincerely,



Angelo Logan

Director, East Yard Communities for Environmental Justice

SCIG and ICTF (in fact, BNSF Railway Co. has prepared a public relations campaign entitled “Communities Matter”). Moreover, retaliatory action by the railroads will favor CARB’s equitable standing in any future judicial proceeding as well as provide strong evidence to USEPA why additional federal action to regulate these sources is necessary. Also, even if the railroads choose to retrofit (at great expense) their dirtiest locomotives to tier 0, it will still lead to cleaner locomotives than we have now, especially since the benefits of any incentive-only approach remain uncertain and ill-defined.

CARB should act from a position of strength with costly recommended incentive and matching fund programs. It is unwise to rule out the strongest tool – regulatory authority. By instituting a rulemaking, staff and all stakeholders will have many months to further study and assess pertinent issues. CARB can both institute regulations and seek incentive monies for compliance – these are not mutually exclusive. This is what the rulemaking process is for.